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EXAMINER	
JOO, JOSHUA	

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/055,650	TRAVERSAT ET AL.	
	Examiner	Art Unit	
	Joshua Joo	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-64* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. Claims 1-64 are presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/10/2006 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1-64 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

i) Regarding claim 1, the limitation of "wherein said establishing, said transmitting, said receiving, and said retransmitting are performed according to at least one of the one or more peer-to-peer platform protocols and separately from the at least one network transport protocols" is not supported by the specification. Page 76, lines 17-21, of

Applicant's specification state that peer protocols are bound to the network transport. However, there does not appear to be support for performing operations of peer-to-peer platforms that are explicitly separate from transport protocols.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-3, 5-7, 11-15, 18, 22, 25-27, 29-31, 35-40, 43, 45-47, 49-51, 55-60, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al, US Patent #6,105,064 (Davis hereinafter), in view of Meyer et al, US Patent #6,992,982 (Meyer hereinafter).

8. As per claims 1, 25, and 45, Davis teaches substantially the invention as claimed including a method, system, and an article of manufacture for dynamically adjusting windows in a peer computing system, Davis's teachings comprising:

a plurality of peer nodes operable to couple to a network (Col 8, lines 21-24. Peer nodes.), wherein each of the plurality of peer nodes comprises one or more network interfaces; wherein each network interface is configured to communicate over the network in accordance with at least one or more network transport protocols (Col 9, lines 5-8. Endnodes establish network communication session.);

wherein the plurality of peer nodes is configured to implement a peer-to-peer environment on the network according to a peer-to-peer platform comprising one or more peer-to-per platform protocols for enabling the plurality of peer nodes to discover each other (Col 8, lines 21-24. Peer-to-peer network.), communicate with each other (Col 75, lines 3-5. Sending endnode request connection with receiving endnode.); and share content in the peer-to-peer environment (Col 9, lines 23-34. Establish connection for sending data.);

wherein one of the plurality of peer nodes is configured to:

establish a communications channel between a network interface of the peer node and a network interface of another of the plurality of peer nodes(Col 9, lines 5-8. Endnodes establish network communication session.);

transmit messages to the other peer node over the communications channel (Col 59, lines 1-3. Transmits packets.);

receive acknowledgement that one or more of the transmitted messages have been received by the other peer node (Col 59, lines 1-3. Acknowledges packets.); and

retransmit messages not acknowledged as received by the other peer node to the other peer node on the communications channel (Col 73, lines 44-47. Unacknowledged packets are retransmitted.).

9. Davis teaches substantial features of the claimed invention including said establishing, said transmitting, said receiving, and said retransmitting according to a network transport protocol. However, Davis does not teach wherein said establishing, said transmitting, said receiving, and said retransmitting are performed according to at least one of the one or more peer-to-peer platform protocols and separately from the at least one network transport protocols. Meyer teaches of communication between protocol peers with a communication protocol comprising establishing a communications channel between a network interface of the peer node and a network interface of another of the plurality of peer nodes; transmit messages to the other peer node over the communications channel; receive acknowledgement that one or more of the transmitted messages have been received by the other peer node; and retransmit messages not acknowledged as received by the other peer node to the other peer node on the communications channel (Col 5, lines 37-55; Claim 7)

10. It would have been obvious to combine the teachings of Davis and Meyers because the teachings of Meyers to provide a communication protocol comprising said establishing, said transmitting, said

receiving, and said retransmitting for communication between protocol peers would improve the teachings of Meyer by ensuring the successful transmission of packets between peers and reducing excessive delays in communication. Furthermore, since Davis already teaches the steps of said establishing, said transmitting, said receiving, and said retransmitting according to a network transport protocol, it would have been obvious to one of ordinary skill to implement the steps in different types of networking protocols and communications, such as peer-to-peer networking, to provide reliable communications and improved quality of service.

11. As per claims 2, 26, and 46, Davis teaches the invention in claims 1, 25, and 45, wherein, to transmit messages to the other peer node over the communications channel, the peer node is further configured to:

generate messages (Col 29, lines 54-60. Data is send. Col 10, line 9-20. Messages.);

buffer the messages, and after a window of N messages has been buffered, transmit the N messages to the other peer node over the communications channel, wherein N is an integer greater than one (Col 29, line 51-60. Window size is determined for transmission of packet. Col 49, line 61-Col 50, line 55. Data is buffered prior to transmission.).

12. As per claims 3, 27, and 47, Davis teaches the invention as recited in claims 2, 26, and 46, wherein the other peer node is configured to receive the transmitted messages, and after receiving M messages, transmit the acknowledgement to the peer node indicating that the M messages have been received, where M is a positive integer less than or equal to N (Col 30, lines 66-67. Sends acknowledgments to the number of received packets. Col 59, lines 34-35. Acknowledges to packets received.).

13. As per claims 5, 29, and 49, Davis teaches the invention as recited in claims 3, 27, and 47, wherein M is less than N (Col 29, lines 64-66. Lost packets. Col 30, lines 66-67. Acknowledge receipt of packets.).

14. As per claims 6, 30, and 50 Davis teaches the invention as recited in claims 5, 29, and 49, wherein, to receive acknowledgement that one or more of the transmitted messages have been received by the other peer node, the peer node is further configured to receive the acknowledgement indicating that M messages have been received (Col 30, lines 65-67. Sends acknowledgement of packets received.), and wherein the peer node is further configured to:

shift the window in the buffer by M messages (Col 30, lines 65-67. Shift window by number of packets acknowledged.); and

transmit the messages in the shifted window to the other peer node over the communications channel (Col 29, lines 51-60. Send packets according to window size.).

15. As per claims 7, 31, and 51, Davis teaches the invention as recited in claims 6, 30, and 50, wherein the shifted window includes one or more messages previously transmitted to the other peer node and one or more messages not previously transmitted to the other peer node (Col 30, line 1-8. Changes window size and retransmits the packet. Col 29, lines 51-60. Send packets according to window size.).

16. As per claims 11, 35, and 55, Davis teaches the invention as recited in claims 1, 25, and 45, wherein each of the messages includes a sequence number for use in ordering the received messages on the other peer node (Col 2, lines 13-16. Packets are assigned sequence numbers. Receiver places data in original order.).

17. As per claims 12, 36, and 56, Davis teaches the invention as recited in claims 3, 27, and 47, wherein the peer node and the other peer node are further configured to:

monitor the reception and retransmission of the messages to determine reliability of the communications channel on the network (Col 30, lines 65-57. Receives acknowledgement of packets received. Col 32, lines 15-29. Examines results of through measurements, detects bandwidth.); and

adjust the values of M and N according to said reliability of the communications channel (Col 30, lines 65-67; Col 31, lines 1-3. Size of window is changed according to acknowledgements. Col 32, lines 18-22. Changes window size according to network conditions.).

18. As per claims 13, 37, and 57, Davis teaches the invention as recited in claims 12, 36, and 56, wherein, to adjust the values of M and N, the peer node and the other peer node are further configured to lower the values of M and N if said reliability of the communications channel is poor (Col 31, lines 61-63; Col 31, lines 1-7. Decrease window size if packets are lost.).

19. As per claims 14, 38, and 58, Davis teaches the invention as recited in claims 12, 36, and 56, wherein, to adjust the values of M and N, the peer node and other peer node are further configured to raise the values of M and N if said reliability of the communication channel is good (Col 26, lines 57-64; Col 30, lines 65-67. Increase window size according to acknowledgements.).

20. As per claims 15, 39, and 59, Davis teaches the invention as recited in claims 1, 25, and 45, wherein the other peer node is configured to (Col 8, lines 19-24. Any computer may function as a peer, and as a client and server. Col 8, lines 34-35. Different computer assume the sending and receiving roles.):

transmit other messages to the peer node over the communication channel (Col 59, lines 1-3. Transmits packets.);

receive acknowledgement that one or more of the transmitted other messages have been received by the peer node (Col 59, lines 1-3. Acknowledges packets.); and

retransmit messages not acknowledged as received by the peer node to the peer node on the communications channel (Col 73, lines 44-47. Unacknowledged packets are retransmitted.).

21. As per claims 18 and 40, Davis teaches the invention as recited in claims 1 and 25, wherein the communications channel passes through one or more relay peers, wherein the one or more relay peers are configured to receive the transmitted messages from the peer node and forward the messages to the other peer node (Col 8, lines 3-5. Server may configured as a networked peer. Col 8, lines 29-31. Server acts as an intermediate node between sending endnode and receiving endnode.).

22. As per claim 60, Davis teaches the article of manufacture as recited in claim 45, wherein the software instructions are further executable to implement: configuring the peer node as a relay peer, wherein a communications channel between a third peer node of the plurality of peer nodes and the other peer node passes through the peer node; the relay peer node receiving messages transmitted from the third peer node to the other peer node; and forwarding the messages to the other peer node (Col 8, lines 1-5, 19-24. Server as networked peer. Any computer may also function as a peer. Col 8, lines 29-31. Server acts as intermediate node between sending and receiving endnodes.).

23. As per claims 22, 43, and 63, Davis teaches the invention as recited in claims 1, 25, and 45, wherein the peer node is further configured to compare elapsed time since the messages were transmitted to a timeout limit and, if the elapsed time exceeds the timeout limit (Col 3, lines 35-36. Col 31, lines 27-

38. Expiration of time-out period.), retransmit the messages to the other peer node over the communications channel (Col 73, lines 44-47. Retransmits unacknowledged packets.).

24. Claims 4, 8-10, 28, 32-34, 48, and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis and Meyer, in view of Barker et al, US Patent #5,931,916 (Barker hereinafter).

25. As per claims 4, 28, and 48, Davis does not specifically teach the peer computing system as recited in claim 3, wherein N is a positive even integer, and wherein M is equal N/2. Barker teaches of a similar system of adjusting the window for the transmission of packets, wherein the receiving sends an acknowledgement after a certain number of messages in a sequence have been received (Col 6, lines 25-31, 63-66).

26. Even though Davis and Barker do not explicitly teach the receiver endnode of receiving N/2 messages, Barker does teach of sending an acknowledgment after a certain M packets have been received. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis and Barker and for the receiver endnode to transmit an acknowledgment after any M messages including N/2 messages because doing so would allow the sender endnode to remove the acknowledged packets from the queue or buffer, transmit addition packets equal to the number of received packets, and adjust the window size, thereby improving the transmission of packets without data loss.

27. As per claims 8, 32, and 52, Davis teaches the peer computing system as recited in claim 2, wherein each of the messages includes a sequence number for use in ordering the received messages on the other peer node (Col 2, lines 13-16. Packets are assigned sequence numbers. Receiver places the data back in its original order.), and wherein the other peer node is configured to: receive the transmitted

messages (Col 59, lines 34-36. Receives packet.). Davis also teaches of transmitting an acknowledgement to received messages (Col 73, lines 1-4). However, Davis does not explicitly teach that after receiving the first M messages in the sequence of N transmitted messages as indicated by the sequence numbers, transmit the acknowledgement to the peer node indicating that the first M messages have been received, wherein M is a positive integer less than N.

28. Barker teaches of adjusting the window for the transmission of packets comprising receiving first messages in the sequence of N transmitted messages as indicated by the sequence numbers, and transmitting an acknowledgement indicating that the first messages have received, wherein M is a positive integer less than N (Col 6, lines 65-67; Col 7, lines 18-19).

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Barker because teachings of Barker to performs the above method of paragraph 28 would improve the system of Davis and Meyer by allowing the sender endnode to adjust window size according to the received sequence, improving the flow of traffic, and allowing the sender endnode to remove successfully transmitted packets from its queue or buffer.

30. As per claims 9, 33, and 53, Davis teaches the peer computing system as recited in claim 2, wherein each of the messages includes a sequence number for use in ordering the received messages on the other peer node (Col 2, lines 13-16. Packets are assigned sequence numbers. Receiver places the data back in its original order.), and wherein the other peer node is configured to: continue receiving the transmitted messages until the first M messages in the sequence of N transmitted messages as indicated by the sequence numbers are received (Col 6, lines 63-67. Sends acknowledgement due to the receipt of a certain number of packets. Col 73, lines 44-47. Packets are transmitted, and acknowledgement is send when the packets are received.) or a timeout limit from the time of initial receipt of one of the sequence of

N transmitted messages is exceeded, wherein M is a positive integer less than N (Col 31, line 26-28. Expiration of time out period. Col 73, lines 44-47. Unacknowledged packets are retransmitted.). However, Davis does not teach that if the first M messages in the sequence of N transmitted messages as indicated by the sequence numbers are received, transmit the acknowledgement to the peer node indicating that a count of messages received in continuous sequence from a first message in the sequence of N transmitted messages is M; and if the timeout limit is exceeded before the first M messages in the sequence of N transmitted messages as indicated by the sequence numbers are received, transmit the acknowledgement to the peer node indicating the count of messages received in continuous sequence from the first message in the sequence of N transmitted messages, wherein the count of messages received in continuous sequence is less than M.

31. Barker teaches of adjusting the window for the transmission of packets, wherein if the first M messages in the sequence of N transmitted messages as indicated by the sequence numbers are received, transmit the acknowledgement to the peer node indicating that a count of messages received in continuous sequence from a first message in the sequence of N transmitted messages is M (Col 7, lines 16-29. Transmits acknowledgment of sequence of received datagram, e.g. 8.) and

if the timeout limit is exceeded before the first M messages in the sequence of N transmitted messages as indicated by the sequence numbers are received, transmit the acknowledgement to the peer node indicating the count of messages received in continuous sequence from the first message in the sequence of N transmitted messages, wherein the count of messages received in continuous sequence is less than M (Col 6, lines 59-66. If time out expires, transmit acknowledgement in respect to consecutively received sequence numbered datagram. The acknowledgement acknowledges all earlier sequenced numbered datagram.).

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Barker because teachings of Barker to performs the above method of paragraph 31 would improve the system of Davis and Meyer by allowing the sender endnode to adjust window size according to the received sequence, thus improving the flow of traffic, preventing the retransmission of received sequence of packets, and allowing the sender endnode to remove successfully transmitted packets from its queue or buffer.

33. As per claims 10, 34, and 54, Davis teaches the invention, wherein, to receive acknowledgement that one or more of the transmitted messages have been received by the other peer node, the peer node is further configured to receive the acknowledgement indicating that the messages have been received (See rejection to claim 1 above.) However, Davis does not teach the invention, wherein the peer node is further configured to: shift the window in the buffer by the count of messages received in continuous sequence; and transmit the messages in the shifted window to the other peer node over the communications channel. Barker teaches of adjusting the window for the transmission of packets by setting the window based on the sequence of the datagram and transmitting packets based on the window (Col 6, line 59-Col 7, line 2; Col 13, lines 14-19).

34. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Barker because the teachings of Barker to adjust the window for the transmission of packets by setting the window based on the sequence of the datagram and transmitting packets based on the window would improve the system of Davis and Meyer by allowing the sender endnode to dynamically adjust window size according to the received sequence, thus improving the flow of traffic by providing highest throughput without dropping packets.

35. Claim 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis and Meyer, in view of Ivanoff, US Patent #5,517,622 (Ivanoff hereinafter).

36. As per claims 16, Davis teaches of transmitting messages to the other peer node, receiving the acknowledgement, and retransmitting the message not acknowledged as received (See rejection to claim 1). However, Davis does not specifically teach the peer node comprising an instance of a pipe service executable within the peer node to establish the communications channel. Ivanoff teaches of peer-to-peer system (Col 7, lines 56-57; Col 10, lines 35-38), wherein the peer node comprises an instance of a pipe service to establish a connection (Col 60, lines 49-54; Col 61, lines 1-21).

37. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Ivanoff because the teachings of Ivanoff for a node to comprise an instance of a pipe service would improve the system of Davis and Meyer by providing different types of service to establish a connection with peer nodes and providing management of connections as taught by Ivanoff.

38. As per claim 17, Davis teaches a receiving endnode that receives the transmitted messages and transmits the acknowledgement to the peer node (See rejection to claim 1 above.) However, Davis does not specifically teach the system wherein the other peer node comprises another instance of the pipe service executable within the other peer node. Ivanoff teaches of peer-to-peer system (Col 7, lines 56-57; Col 10, lines 35-38), wherein the peer node comprises an instance of a pipe service to establish a connection (Col 60, lines 49-54; Col 61, lines 1-21).

39. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Ivanoff because the teachings of Ivanoff for a node to comprise an instance of a pipe service would improve the system of Davis and Meyer by providing

different types of service to establish a connection with peer nodes and providing management of connections as taught by Ivanoff.

40. Claims 19-20, 41-42, and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis and Meyer, in view of Antur et al, US Patent #6,212,558 (Antur hereinafter).

41. As per claims 19-20, 41-42, and 61-62, Davis teaches a system wherein the communication channel passes through intermediate nodes such as router or a bridge (Col 8, lines 30-31). However, Davis does not teach the invention, wherein the communications channel passes through one or more firewalls or one or more Network Address Translation (NAT) gateways. Antur teaches of implementing security policy, wherein Antur teaches of using network address translators (Col 3, lines 38-67), and firewalls (Col 3, lines 32-36; Col 6, lines 1-4).

42. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Antur because the teachings of Antur to implement network address translator and firewall would improve the security of Davis and Meyer's peer node system by preventing unwanted connections to peer nodes and keeping the IP addresses of peer nodes private from the rest of the network.

43. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, in view of Meyer.

44. As per claim 21, Davis teaches the system wherein any peer node in a plurality of peer nodes may communicate with each other (Col 8, lines 19-24), wherein a node transmit messages to a second computer and receive messages from a third computer (Col 8, lines 37-40). Davis also teaches the concept of transmitting messages to peer nodes, receive acknowledgements that one or more the transmitted messages have been received; and retransmitting messages not acknowledged (See rejection

to claim 1 above.). However, Davis does not specifically teach the peer computing system, wherein one or more other of the plurality of peer nodes are configured to connect to the communications channel, wherein the peer node is further configured to: transmit messages to the one or more other peer nodes over the communications channel; receive acknowledgements that one or more of the transmitted messages have been received by the one or more other peer nodes; and retransmit messages not acknowledged as received by the one or more other peer nodes to the one or more other peer node on the communications channel.

45. A node in a peer-to-peer system capable of communicating with more than one node is well known in the art. It would have been obvious to one of ordinary skill in the art to modify the teachings of Davis and Meyer to teach the sending node communicating with more than one receiving endnode, wherein communication involves transmitting messages, receiving acknowledgement, and retransmitting messages not acknowledged. Doing so would improve the system of Davis and Meyer by allowing a plurality of peer nodes in the system to share information with each other instead of limiting the communication to two nodes.

46. Claims 23, 24, 44, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, in view of Zhu et al, US Patent #5,768,557 (Zhu hereinafter).

47. As per claims 23, 44, and 64, Davis teaches of assigning sequence numbers to packets to allow the receiver node to order the packets (Col 2, lines 12-16), and retransmitting packets when the receiving endnode does not receive the packets (Col 31, lines 1-3). However, Davis does not explicitly teach the invention, wherein the peer node is further configured to: receive a request specifying one or more previously transmitted messages for retransmission by the peer node; and retransmit the specified one or more messages to the other peer node on the communications channel in response to the request. Zhu

teaches of receiving a request specifying previously transmitted messages for retransmission (Col 7, lines 44-49), and retransmitting the specified messages to the node (Col 7, lines 56-57).

48. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Zhu because the teachings of Zhu to request specifying previously transmitted messages for retransmission would improve the system of Davis and Meyer by allowing the receiver to request data that was not received or request data when previously received data contain errors.

49. As per claim 24, Davis teaches of transmitting packets that contain the sequence number for ordering the packets (Col 2, lines 12-16). However, Davis does not specifically teach the peer computing system, wherein the request specifies a sequence number for each of the one or more specified messages. Zhu teaches of a system for requesting retransmission of packets, wherein the request contains the sequence number of the lost packet (Col 7, lines 49-50).

50. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Meyer, and Zhu because the teachings of Zhu for the request to contain the sequence number would improve the system of Davis and Meyer by allowing the receiver endnode to request specific individual packets to reorder the sequence without having to request and transmit the entire sequence.

Conclusion

51. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

52. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Thursday 8AM to 5PM and every other Friday.

53. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on 571 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

54. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 23, 2006
JJ